## CABOMBA CAROLINIANA GROWS IN WORCESTER COUNTY, MASSACHUSETTS

## BURTON N. GATES

The distribution of Cabomba caroliniana A. Gray in Massachusetts is gradually unfolding. An important recent contribution is that of Stuart K. Harris¹ who collected it in Fosters Pond, Essex County, 1957. In the next County to the south, Suffolk, Dr. Harris also reported it in abundance in Muddy River, The Fenway, Boston. South of Boston, the present writer has seen a specimen from the sandy shore of Nippenicket Pond, Bridgewater, Plymouth County (Frank C. Seymour, 4426, 1935; a sterile specimen in the New England Botanical Club Herbarium).

The range of Cabomba extends westward into Worcester County. The specimens documenting this distribution are filed in the Hadwen Herbarium of Worcester County Plants, Clark University, Worcester. The earliest collection was from Uxbridge, in the Mumford River (Walter H. Hodge, 2825, 1933). Again in Uxbridge, it was found in great abundance; the long streamers, having been washed up by a hurricane, were floating along the shore of Ironstone Reservoir. A random specimen measured 85+ inches long (F. C. Seymour and B. N. Gates 32316, 1954). Nine years previous, it had been collected as an occasional plant in Ironstone Brook at Ironstone Road, which is fed by Ironstone Reservoir (B. N. Gates 23914, 1946). In the southeast town in Worcester County, Blackstone, in the Blackstone River, two or three feet deep, Cabomba covered the bed of the river (Malumphy 24893, 1943).

Distribution in Worcester County extends west considerably beyond the geographical center of the State. On a field trip of the New England Botanical Club it was first collected floating along the north-east shore of Quaboag Pond near the inlet of Seven Mile River (David Potter 24913, 1946). At this station, it has been observed nearly every year since and was collected in May 1955 (Winifred C. Gates 31976). That there is no association by water-courses between this East Brookfield station and

<sup>&</sup>lt;sup>1</sup> Rhodora 60: 116, 1958.

A profusion of amazingly long streamers of Myriophyllum humile forma capillaceum tangled with Cabomba; the collected specimen measured in excess of 11.5 feet long (F. C. Seymour and B. N. Gates 31995).

the two towns, Uxbridge and Blackstone, is quite evident; East Brookfield is in the water-shed which empties into the Thames River in Connecticut, while the two other towns are in the Blackstone River water-shed, draining south through Rhode Island.

Westward from Worcester County, Fassett,<sup>3</sup> without a specific citation, lists an occurrence in "western Massachusetts, where perhaps introduced", is interpretable as most any locality west of the Connecticut River. It is quite probable, however, that his citation refers to the collection in 1930 by Wayne E. Manning<sup>4</sup> in Hatfield, Hampshire County. He found it very abundant in South Pond, once a very old ox-bow of the Connecticut River. A local florist and fisherman, Harold Keys, is quoted by Manning as having known it in profusion in this pond for at least a decade previous and as having suggested that it appeared to be indigenous.

To round out the statement of occurrence of Cabomba in southern New England, it may be helpful to cite briefly two collections in Connecticut, which have been seen by the writer. Ultimately, it might develop that they have some relationship to the Massachusetts station in the Connecticut River Valley water-shed. In Rogers Pond, Saybrook, Middlesex County, it was reported to be very abundant (E. H. Eames 11854a, 1937; a specimen in flower at the Gray Herbarium). In a pond at the south-west base of Chestnut Hill, Trumbull, Fairfax County, it has been long established, according to the property owner. (E. H. Eames 11874, 1937; a specimen in flower in the Gray Herbarium).

Sterile Cabomba has a reasonable resemblance to several other aquatics found in our New England waters. For this reason and because in the writer's experience it is seldom found in flower or fruit, at least in Massachusetts, it may be readily overlooked or mistaken for one of several plants of ponds and streams. Sterile specimens of Cabomba have the general appearance of Ceratophyllum demersum L., Megalodonta Beckii (Torr.) Greene, Ranunculus flabellaris Raf. and to some forms of Myriophyllum. Distinguishing characters of the stem and leaves of these are very helpfully pictured by W. C. Muenscher, in comparison with the

Manual of Aquatic Plants, 1940.

<sup>4</sup> Rhodora 39: 187.

stem and leaves of Cabomba, on a plate in his "Aquatic Plants of United States". Observe that Cabomba has a well developed petiole without stipules.

Conclusions are few, beyond the fact that Cabomba is locally widespread in Massachusetts. The earliest collection known in Massachusetts was in 1930, in Hatfield, Hampshire County, followed in Worcester County, in Uxbridge, in 1933. In the writer's experience, supported by the collections of others, it is locally plentiful and well established. Regrettably, the writer has yet to see it in flower or fruit in the area (although the two Connecticut collections were in flower). Occurrence in Massachusetts constitutes an extension considerably north of the normal range given in Gray's Manual, ed. 8, as Virginia, or, by Fassett, as New Jersey. Each of these authors would account for the New England extension as "naturalized" or "perhaps introduced" through some unexplained means. Its scattered but established distribution anticipates that further collections should show a more unified occurrence of Cabomba in southern New England.— BIOLOGY DEPARTMENT, CLARK UNIVERSITY, WORCESTER, MASS.

## FURTHER NEW RECORDS OF MYRTACEAE FROM JAMAICA

## George R. Proctor

Recent botanical exploration by the writer in Jamaica has revealed an interesting series of new plant records. A previous number of Rhodora (50:303-306.1957) presented a few notes on Eugenia and proposed one new species. The present paper contributes more new Jamaican records in the Myrtaceae. The writer is grateful to Dr. Lily M. Perry for her assistance with the Latin descriptions.

Calyptranthes clarendonensis Proctor, sp. nov. Frutex circa 2.5 m. altus; ramulis novellis fere teretibus, dense brunneo-tomentosis. Folia sessilia, rigide coriacea, opaca, non pellucido-punctata, supra glabra, subtus decidue brunneo-tomentosa, 2.5–5 cm. longa, 1.5–4.5 cm. lata, late ovata, apice obtusa, basi valde cordato-subamplexicaule, nervo medio supra basin versus impresso, subtus prominente, venis secundariis prominulis. Inflorescentiae 2–4, subterminales, apice 2–3-florae, floribus sessilibus. Alabastra ovoidea, apiculata, 5–6 mm. longa, dense brunneo-

<sup>&</sup>lt;sup>5</sup> Ithaca, N. Y., 1944, plate 102a, page 232,